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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.            | CONFIRMATION NO. |
|--|-------------|----------------------|--------------------------------|------------------|
| 10/614,803   | 07/09/2003  | Italo Busi           | Q76443                         | 8051             |
| 23373 7590 03/07/2007<br>SUGHRUE MION, PLLC<br>2100 PENNSYLVANIA AVENUE, N.W.<br>SUITE 800<br>WASHINGTON, DC 20037 |             |                      | EXAMINER<br>KASRAIAN, ALLAHYAR |                  |
|  |             |                      | ART UNIT                       | PAPER NUMBER     |
|  |             |                      | 2609                           |                  |
| SHORTENED STATUTORY PERIOD OF RESPONSE   |             | MAIL DATE            | DELIVERY MODE                  |                  |
| 3 MONTHS   |             | 03/07/2007           | PAPER                          |                  |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

# Office Action Summary

Application No.

10/614,803

Applicant(s)

BUSI ET AL.

Examiner

Allahyar Kasraian

Art Unit

2609

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 09 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 7-9 and 12-15 is/are rejected.
- 7) ☒ Claim(s) 5, 6, 10 and 11 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 09 July 2003.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

#### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

#### ***Information Disclosure Statement***

2. The information disclosure statements submitted on July 9, 2003 been considered by the Examiner and made of record in the application file.

#### ***Specification***

3. The disclosure is objected to because of the following informalities:
  - a. **On page 4**, line 1 of the third paragraph of the SUMMERY OF THE INVENTION, replace "This way It" with --By this way, it-- before "is"
  - b. **On page 5**, line 1 of the first paragraph of BEST MODE FOR CARRING OUT THE INVENTION, replace "viseversa" with --vice versa-- after "and"
  - c. **On page 7**, the second line, replace "Lab1" with --Label-- before "field"Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 101***

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims **12 and 14** are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The language of the claim raises a question as to whether the claim is directed merely to an abstract idea that is not tied to a technological art, environment or machine which would result in a practical application producing a concrete, useful, and tangible result to form the basis of statutory subject matter under 35 U.S.C. 101.

Claims **12 and 14**, claims the non-statutory subject matter of a computer program. Data structures not claimed as embodied in computer-readable media are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer. See, e.g., *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1754 (claim to a data structure per se held nonstatutory). Therefore, since the claimed programs are not tangibly embodied in a physical medium and encoded on a computer-readable medium then the Applicants has not complied with 35 U.S.C 101.

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims **1, 2, 7-9 and 12-15** are rejected under 35 U.S.C. 102(e) as being anticipated by **Bannai et al. (U.S. Pub. # 2003/0208525 A1)**.

Consider **claims 1 and 8**, Bannai et al. clearly shows and discloses a method and telecommunication transmission network for an end-to-end connection between a

client layer (see FIG. Domains A in locations 120, 122, 124 and 126, and as described in lines 4-5 of paragraph 0030, where it says, "domain A may send a data packet to another endpoint device of domain A..." ) connected to an RPR (Resilient Packet Ring) network (see FIG. 1, Domains A on Resilient Packet Ring 102, and as described in lines 9-10 of paragraph 0027 where it says, "the locations 120 and 122 may thus exchange data over the ring 102.") and a client layer connected to an MPLS (Multi Protocol Label Switching) network (see FIG. 1 domains A in locations 124, and 126; in addition lines 4-6 of paragraph 0030 where it says, "domain A may send a data packet to another endpoint device of domain A using multicast MPLS..." ), wherein the RPR network and the MPLS network are interconnected through a TLS (Transparent LAN Service) layer (see lines 1-5 of paragraph 0026, where it says, "Multiple transparent LAN services (TLS) domains such as domains A and B may co-exist on the ring 102. A TLS domain may be identified by a port of slot of a node...each TLS domain has an associated multicast MPLS label").

Consider **claims 2 and 7 as applied to claim 1 above, and claim 9 as applied to 8 above**, Bannai et al. clearly shows and discloses the RPR and the MPLS network are further interconnected through an interface consisting in a physical layer like, but not limited to, SDH or SONET, or Ethernet (see FIG. 1 nodes 104-110 on ring 102, and as described in lines 1-4 of paragraph 0028 where it says, "Each of the nodes 104-110 may include physical ports, such as Ethernet and Gigabit Ethernet ports. These physical ports may be configured to be a part of any of the domains A, B of the ring 102.")

Consider **claims 12-15 as applied to claims 1 and 8 above respectively**, a computer readable medium having a program recorded thereon, said computer readable medium comprising computer program code means adapted to perform all the steps of claims 1 and 8 when said program is run on a computer that is inherently taught by Bannai et al. since some kind of memory is required to store the operating instructions for the system and for execution of the method.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims **3-4** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Bannai et al. (U.S. Pub. # 2003/0208525 A1)**.

Consider **claim 3 as applied to claim 1 above**, Bannai et al. did not explicitly disclose a method for sending a packet in the direction from RPR to MPLS or MPLS to RPR.

However, Bannai et al. provides a clear suggestion for performing the claim steps when they disclose sending and receiving a TLS packet in combined MPLS and RPR networks by forming a ring packet as illustrated in FIG. 5 and FIG. 7B (as described on lines 7-10 of paragraph 0046, where it says, "the TLS microcode 422 (see FIG. 4) appends the service header 506, a multicast MPLS label 710 and a ring header 712 to the incoming packet 700 ... to form a ring packet 720.")

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use the teaching method of Bannai et al. in order to route client frames in the direction from RPR to MPLS or from MPLS to RPR networks efficiently.

Consider **claim 4 as applied to claim 3 above**, Bannai et al clearly shows and discloses an auxiliary TLS Header is added to said received client frames, obtaining said TLS packets (see Service Header 506 in FIG. 5, and lines 1-4, where it says, "A transmitted data packet from one of the nodes... may also include a service header. The service header is generally used to communicate service level parameters..."); then an RPR Header is added to said TLS packets, obtaining said RPR packets (see FIG. 5, 7B, and 7C), and in that said TLS Header contains a channel identifier field, identifying the connection between the client layer connected to the RPR network (see FIG. 6, TTL field 616, and lines 5-7 of paragraph 0055, where it says, "The TTL filed maybe 8 bits long and may be replaced with a hash ID of a ring card of the source node") and the client layer connected to the MPLS network (see FIG. 6, unicast label filed 608, and lines 1-2, where it says, "The unicast label filed 608 is used by the TLS service to indicate the source MPLS label..."), said TLS Header further containing Reserved bits (see FIG. 6, Unused filed 606) and Error correction bits (see FIG. 7A, and lines 7-8, where it says, "The incoming packet 700 may also include cyclic redundancy code...").

***Allowable Subject Matter***

9. Claims **5-6 and 10-11** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.



10. The following is a statement of reasons for the indication of allowable subject matter:

Consider **claim 5**, the best prior art found during the examination of the present application, **Bannai et al. (U.S. Pub. # 2003/0208525 A1)** fails to specifically disclose, teach or suggest a modified method of **claim 4**, the TLS header converted in a MPLS header by the following steps: the TLS channel identifier field is left unchanged and becomes the MPLS Label in the MPLS header; and the TLS Error correction bits are removed and a predefined MPLS Time-to-live value is inserted in the MPLS header.

Consider **claim 10**, the best prior art found during the examination of the present application, **Bannai et al.** fails to specifically disclose, teach or suggest modified method of **claim 4**, with means for selecting a port connected to a corresponding port of a node of the MPLS network, on the basis of the channel identifier field value.

### ***Conclusion***

11. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure.

- a. Katz (U.S. Patent # 7,145,878 B2) discloses Avoiding Overlapping Segments in Transparent LAN Services
- b. Romana et al. (U.S. Patent # 6,785,285 B1) discloses Method and System for Providing Broadcast Channels over an Emulated Subnetwork

- c. Hurren et al. (U.S. Patent # 6,788,681 B1) discloses Virtual Private Networks and Methods for Their Operation

12. Any response to this Office Action should be **faxed to (571) 273-8300 or mailed to:**

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**Hand-delivered responses** should be brought to

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Randolph Building  
401 Dulany Street  
Alexandria, VA 22314

13. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Allahyar Kasraian whose telephone number is (571) 270-1772. The Examiner can normally be reached on Monday-Thursday from 6:30am to 5:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Rafael Pérez-Gutiérrez can be reached on (571) 272-7915. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For


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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

Allahyar Kasraian  
A.K./ak

February 28, 2007

  
RAFAEL PEREZ-GUTIERREZ  
SUPERVISORY PATENT EXAMINER  
3/2/07